

FIG. 1

1 GACACCCAGTCATCAGTCACATCTGCTTTCCTGCACAGAGAGCGCCATAAAACATGAAGGTTTGTACTCTTTGCTGTTTTCTCTGCTTGGTCCA  
M K V L L L F A V F F C L V Q

100 AAGAACTCAG  
R N S  
gtaaatgtcttctgagtagccctggagaaggcaggatgccccttttaggtttgtagaccacattgaggtgtgtccaggtatcaacattgg  
200 gcacagatggtgggacctctggggtcagggctcggaccactttcctaacgaagaggttttatttggattttttttgtttgttcatttgcagagttg  
300 caaattttacagcacggagacacagaggcctatatctccattgtgtaataagaaggtctgattgtaacttgagagtttattcaggacagaattacagcgg  
400 tacctgtgtcaaaagtgtaatcttactgcctcgctgtgagcagagaaggtgttcacatttatgcccttccctaccattacatccacagaacaccagat  
500 gtatgctttaaatgaattttcaaatgagagaaaaataggttcctttaagaagagctagagtcagggtcctgaagccttgaattgtctggcagttctgtcaag  
600 gtggactacaccacatctccatgaaccttcccaacctggtaaacaggatgaacacagtatcacaatcagtcaccagctgaagtccggctattgcagg  
700 agaccagtttccctaaatgttacaggcataggttgggcccgtgttgccttttaacacaggggtgtgcaacattgttaaaaagggtttttttaaccatctctt  
800 tcccatggtgcttcttttgggggactctagttgttttgtttgttttattgttttacttagaaggacacacaagacacattgttatcttcttcttctt  
900 tattgtagtacataagagtgaaaacccaacctgagctgagacagaccgctcctaacttttctatggcctgagaccagctcctgttattctgttctgtt  
1000 ttctttttcttttttaatttattttttatgtatgtgagtacagtgctcactgtcttcagacacaccagaagaggggtgcagatcccattacagatggtt  
1100 gtgagccaccatgtggttgcgtgggaattgaactcgggacctctggaagagcagtcagtgctcttaaccgctgagccatcttccagccctgttctgtt  
1200 tcttaataaccactccccactcccaaatgtacctctatctctgggagctgcagagccctggcctgcaatgggctaggtgacttcacactcagtcgtc  
1300 atgccatccccgaaacaccacgagatataaatggttgctattgaaagctaaggaggaaaaatctcagtgacgccgaaactctggaagagtgagcagattc  
1400 ttcgagaggggctgggggctgggggctgggggctggagccactgttttatctcagtcgtgttgtttccacag  
GGGACATACCACCTGGAATCAGAAACACC  
G D I P P **G** I R N T

1500 GTGTGCTTCATGCGCGGGCCACTGTAGGCTCTTCATGTGCGCTTCTGGGGAGAGAAAGGGGATATTTGCTCTGACCCCTGGAACAGATGCTGCGTAT  
V C F M Q R G H C R L F M C R S G E R K G D I C S D P W N R C C V

1600 CCAGTTCCCATTTAAAAACAGATGATAGAACTCATTGGAAGATCTGAGATGTGGGGTGCAAGCTCTTGAAGCTAGAGACCTGGAAGCACCCCAAGGCT  
S S **S** I K N R \* \*

1700 TTGAGTATGTGTGGCTAATGGTGGTGTCTCAATAAACACTTGTCTG

FIG. 2A



20 40 60 80

Bin1b MKV-LLLFAVFFCLVQNSG-----DIPPGIRNTVCFMQRGHCRLFMCRSGERKGDICSDPWNRCVSSSIKNR-----  
EP2E MKV-FFLFAVLFCLVQNSG-----DVPLGIRNTICRMQQGICRLFFCHSGEKKRDICSDPWNRCVSSNTDEEGKEKPEMDGRSGI  
BNBD9 -----PEGVRNFVTCRINRGFCVPIRCPGHRRQIGTCLGPQIKCCR-----  
BNBD3 -----PEGVRNHVTCRINRGFCVPIRCPGHRRQIGTCLGPRIKCCR-----  
BNBD7 -----PEGVRNFVTCRINRGFCVPIRCPGHRRQIGTCLGPRIKCCR-----  
TAP MRLHHLLALLFLVLSAWSG-----FTQGVGNPVSVCVRNKGICVPIRCPGSMKQIGTCVGRAVKCCRKK-----  
LAP MRLHHLLALLFLVLSAGSG-----FTQGVNSQSCRRNKGICVPIRCPGSMRQIGTCLGAQVCCRKK-----  
EBD MRLHHLLLTLLFLVLSAGSG-----FTQGLSNPLSCLRNRGICVPIRCPGNLROIGTCFTPSVCCRWR-----  
HBD1 MRTSYLLFLTCLLSEMASGGNFLTGLGHRSDHYNVSSGGQCLYSACPIFTKIQGTCYRGKAKCK-----  
HBD2 MRLVYLLFSPLFFLPLPLPG-----VFGGTGDPVTCCLKSGAICHVPVFCPRRYKQIGTCGLPGTKCKKKP-----  
HBD3 MRLHYLLFALLFLPLVPVPGHG-----GIINTLQYYCVRVGRGCAVLSCLPKEEQIGKCTRGRKCCRKK-----  
CBD1 MRTSYLLFLTCLLSEMASGGNFLTGLGHRSDHYNVSSGGQCLYSACPIFTKIQGTCYRGKAKCK-----  
CBD2 MRLVYLLFSPLFFLPLPLPG-----VFGGTSDPVTCLKSGAICHVPVFCPRRYKQIGTCGLPGTKCKKKP-----  
MBD1 MKTHYLLVMTCLFQSMEPGVILTSIGRRTDQYKCLQHGGFCLRSSCPSNTKLQGTCKPDKPNCKS-----  
MBD2 MRLCSLLLCCLFSYTPAVGSLKSGYEAELDHCHTNGGYCVRAICPPSARRPGSCFPEKNPCKKYM-----  
MBD3 MRLHYLLFAPLLVLLSPAA-----FSKKINNPVSLRKGGRCWNR-CIGNTROIGSCGVFFLCKCKRK-----  
MBD4 MRLHYLLFTFLVLLSPLAA-----FTQIINNPITCMTNGAICWGP-CPTAFROIGNCGHFVKCKKIR-----  
RBD1 MKTHYLLVMTCLFQSMELGAGILTSIGRRTDQYRCLQNGGFCLRSSCPSHTKLQGTCKPDKPNCKS-----  
RBD2 MRLHYLLFSPLFFLPLPLSA-----FTQSTNNPITCLTKGGVCWGP-CTGGFROIGTCGLPRVKCKKK-----  
GBD1 MRLHHLLLVLLFLVLSAGSG-----FTQGLRSRRSCHRNGVCALTRCPNMRQIGTCFPPVKKCKRK-----  
GBD2 MRLHHLLLALLFLVLSAGSG-----FTQGLINHRSCVRNKGVCAPARCPRNMRQIGTCFPPVKKCKRK-----  
SBD1 MRLHHLLLVLLFFVLSAGSG-----FTQGVNRNLSCHRNGVCVPSRCPRNMRQIGTCFPPVKKCKRK-----  
SBD2 MRLHHLLLVLLFFVLSAGSG-----FTHGYTDSLSCRWKKGICVLTCPGTMROIGTCFPPVKKCKRLK-----  
PBD1 MRLHRLLLVFLMLVLLPVP-----LLKNIGNSVSLRNKGVCMPGKCAPKMKQIGTCGMPQVKCKRK-----  
Gal1 -----GRKSDCFRKSFGCAFLKCPSLTLISGKCSRFL-CCCKRIW-----  
Gal1a -----GRKSDCFRKNFGCAFLKCPYLTLISGKCSRFL-CCCKRIW-----  
Gal2 -----LFC-KGGSCHFGGCPSHLIKVGSCFGFRS-CCKWPNNA-----  
THP1 MRLVYLLFPFLLLAQAAG-----SSLALGKREKCLRNGFCAPLKCPKTLVISGTCRFO-CCKTLG-----  
THP2 MRLVYLLFSPLFLAQAQVS-----PGLSSPKRDMFLC--KRGTCFGRCPSHLIKVGSCFGFRS-CCKWPNWA-----  
m 1 c g c Cp g c cc

FIG. 2B

20 40 60

Bin1b MKVLLLFVFFCLVQNS-----  
EP2E MKVFFLFAVLFCLVQNS-----  
EP2D MRQRLPSVTSLLLVALLPFGSSQARHVNHSAEALGELERAPGQGTNGFQLLRHAVKRDLLPRT  
HE2b1 MRQRLPSVTSLLLVALLPFGSSQARHVNHSAEALGELERAPGQGTNGFQLLRHAVKRDLLPRT

80 100 120

Bin1b ----GDIPPGIRNTVCFMQRGHCRLFMCRSGERKGDICSDPWNRCVSSSIKNR-----  
EP2E ----GDVPLGIRNTICRMQQGICRLFFCHSGEKKRDICSDPWNRCVSSNTDEEGKEKPEMDGRSGI  
EP2D PPYQGDVPLGIRNTICRMQQGICRLFFCHSGEKKRDICSDPWNRCVSSNTDEEGKEKPEMDGRSGI  
HE2b1 PPYQGDVPPGIRNTICRMQQGICRLFFCHSGEKKRDICSDPWNRCVSSNTDEEGKEKPEMDGRSGI

FIG. 2C

FIG. 3A

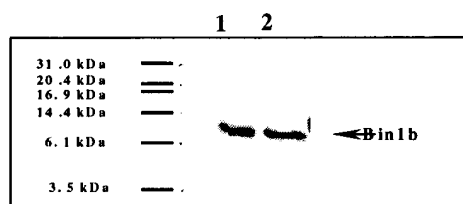


FIG. 3B

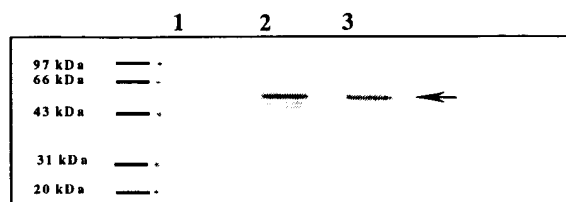


FIG. 3C

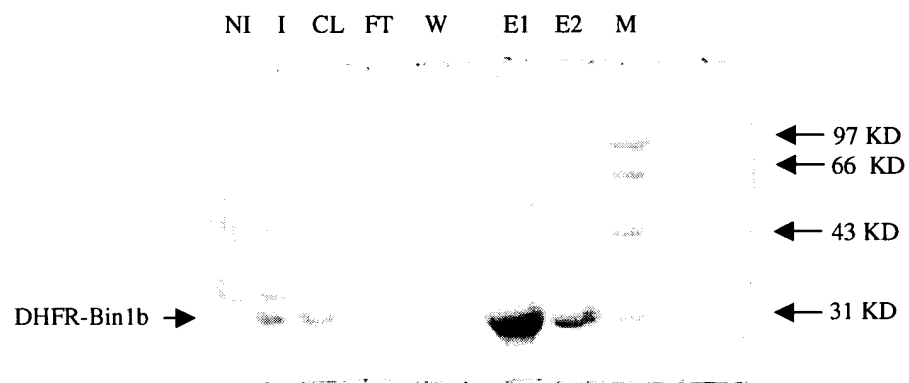
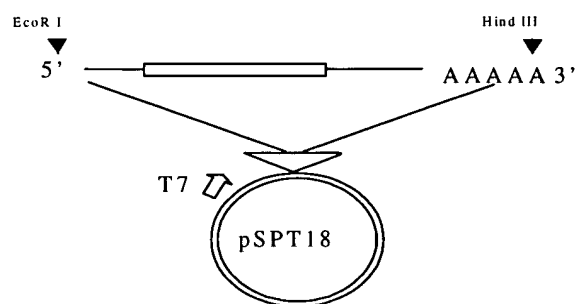
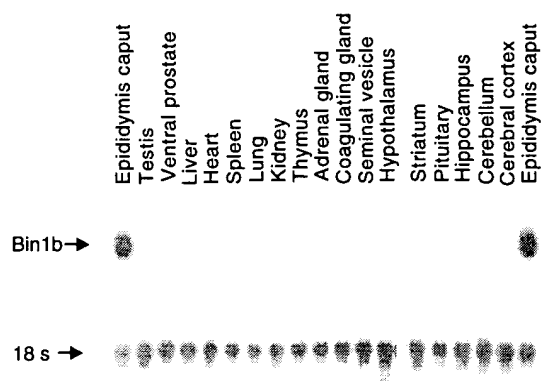
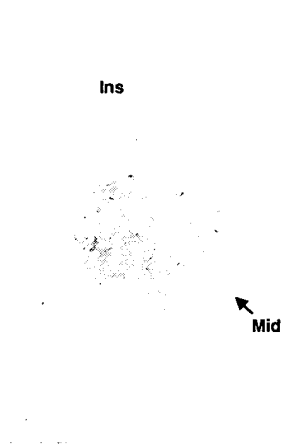


FIG. 4

**FIG. 5A**



**FIG. 5B**



**FIG. 5C**

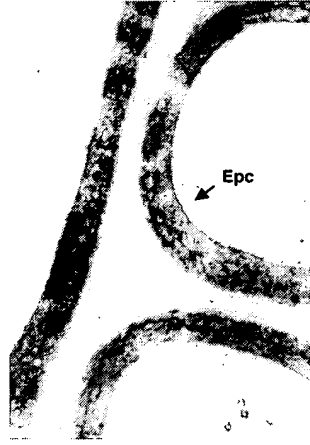


FIG. 5D

Epc

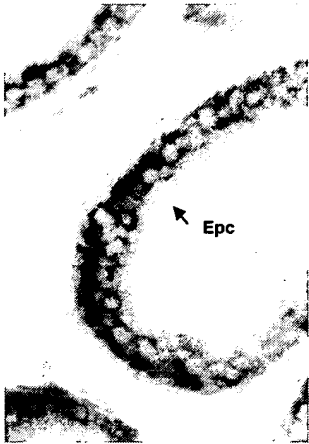
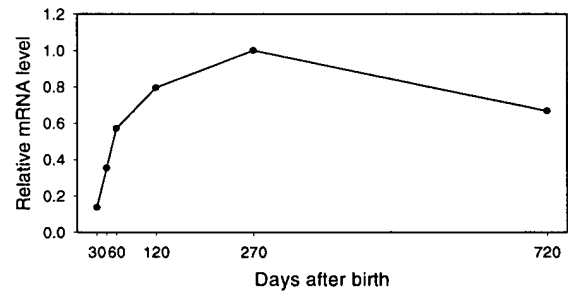


FIG. 5E

Epc

FIG. 5F



15 d 30 d 45 d 60 d 120 d 270 d 720 d  
1 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

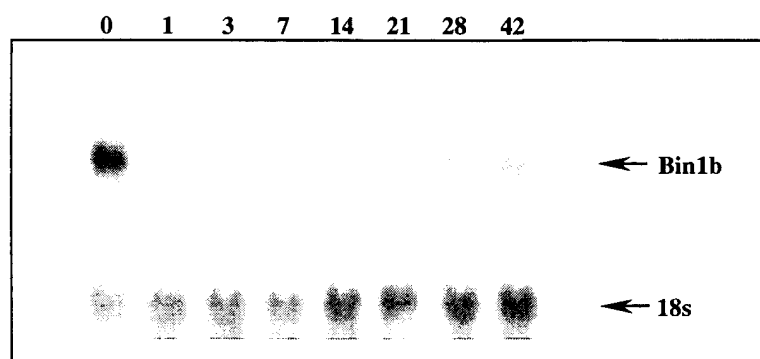
Bin1b →



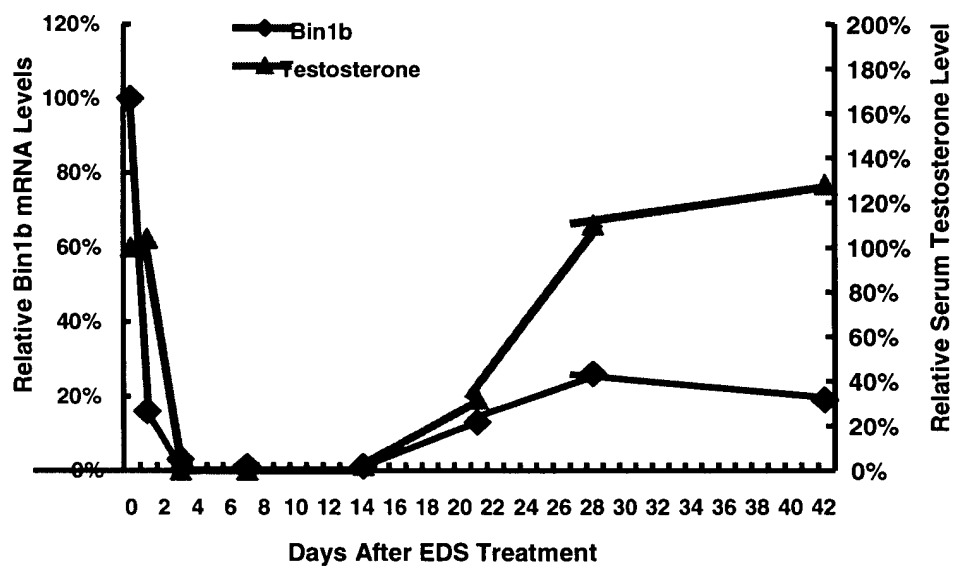
18 s →



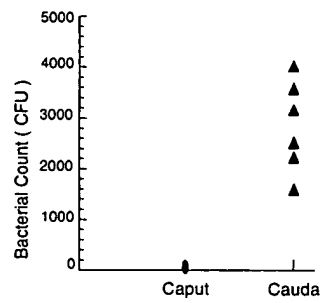
**FIG. 6A**



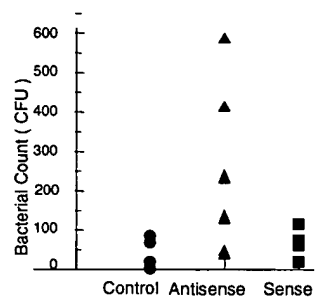
**FIG. 6B**



**FIG. 7A**



**FIG. 7B**



**FIG. 7C**

